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16. The plunger of Claim 1 wherein said handle is releasably connected to said head.

17. The plunger of Claim 11 wherein said handle is of unitary construction with said head.

REMARKS

This application is a continuation associated with prior application Serial No. 08/637,894 filed April 25, 1996. The application was abandoned and a Petition to Revive was filed on May 1, 1999. This Petition was apparently granted since a filing receipt and two Office Actions were issued for this case, however no paperwork showing the grant of the petition has been received by the applicant. The applicant respectfully requests a copy of the paperwork showing that the Petition to Revive was granted.

It is believed that entry of the foregoing preliminary amendment will place the claims of this application in condition for allowance. Specifically, Claims 1 and 15-17 have been amended. In view of the foregoing amendments and the following argument for patentability, the applicant hereby respectfully requests entry of the amendment and allowance of the subject application.

In the previous non-final Office Action the drawings were objected to because the cross-hatching is inaccurate as to the material in FIG. 2 and reference numeral 54 is missing from FIG. 5. Additionally the drawings were objected to under 37 CFR1.83(a). It was stated that the drawings must show every feature of the invention specified in the claims. The Examiner stated that the integral handle set forth in Claim 17 must be shown or the feature(s) entered from the claim(s).

In the Final Office Action the Examiner contended that the Applicant did not

provide proposed drawing changes. However, the applicant did submit proposed changes to drawings and a new drawing, as discussed below. Both proposed changes (indicated in red) and formal drawings with a separate letter to the Official Draftsman were provided and received at the USPTO, as is evidenced by a copy of these documents and the return receipt postcard (front and back) enclosed.

In response to the previous non-final Office Action, the figures were amended and a proposed drawing change was submitted. Specifically, the applicant was not sure which cross-hatching the Examiner referred to with respect to FIG. 2, as there is no cross-hatching in FIG. 2. The applicant, however, amended some cross-hatching in FIG. 3. The applicant further amended FIG. 5 to show reference numeral 54. Additionally, the applicant added a new FIG. 4 (previously submitted as new FIG. 6), showing a plunger with an integrally formed handle. Support for this change is found in the specification on page 3, lines 20-24, which state,

"The seals and bellows can be formed of a single molding operation, if desired. Accordingly, the entire plunger can be of unitary construction."

Applicant provides a new copy of the proposed drawing changes herewith.

The specification was objected to for failing to provide the proper antecedent basis for the claimed subject matter. Proper antecedent basis was required for the subject matter set forth in claims 15-17. In response, it is contended that proper antecedent basis is provided for Claim 15 on page 7 line 15 through page 8 line 3, which states,

"Bellows 22 is formed of plastic or rubber, with the pleats being flexible and resilient and exhibiting elastic memory. Bellows 22 can be formed in a single molding operation from, for example, low density polyethylene plastic mixed with, for example, varying proportions of

copolymer of ethylene and vinyl acetate as the means to control the relative flexibility and resiliency of the various portions of bellows 22. Thus, top 26 is relatively less flexible while pleats 34 are relatively more flexible..."

As for support for Claim 16, see FIG. 1, and page 6, lines 17-19, which state,

"The bottom portion 18 of handle 12 may include external integral threads 20 so that handle 12 can be releasably connected to the bellows 22 of plunger 10."

As for Claim 17, support for this claim is found on page 3, lines 21 to 24, which state,

"The seals and bellows can be formed in a single molding operation, if desired. Accordingly, the entire plunger can be of unitary construction."

Additionally, on page 3, lines 14-18 state,

"The plunger comprises an upstanding preferably vertical handle, to the lower end of which is permanently or releaseably secured a bellows having a plurality of vertically stacked horizontally extending integrally interconnected pleats."

In the prosecution of the prior application, Claims 1-4, 10-17 were rejected under 35 USC 103(a) as being unpatentable over Chieten, U.S. Patent No. 2,844,826, in view of Gross, U.S. Patent No. 3,021,532. The Examiner contends that Chieten discloses all of the elements of applicant's claimed invention with exception of the applicant's claimed sealing rings. However, the Examiner further contends that it would have been obvious to associate the rings of Gross'

plunger's guide portion rings with the plunger of Chieten in order to facilitate drain engagement. The applicant respectfully traverses this contention of obviousness.

In order to deem the applicant's claimed invention unpatentable under 35 USC 103, a prima facie showing of obviousness must be made. To make a prima facie showing of obviousness, all of the claimed elements of an applicant's invention must be considered, especially when they are missing from the prior art. If a claimed element is not taught in the prior art and has advantages not appreciated by the prior art, then no prima facie case of obviousness exists. The Federal Circuit court has stated that it was error not to distinguish claims over a combination of prior art references where a material limitation in the claimed system and its purpose was not taught therein (*In Re Fine*, 837 F.2d 107, 5 USPQ2d 1596 (Fed. Cir. 1988)).

The applicant's claimed invention includes three sealing rings of a shape, size, and location such that the claimed plunger will efficiently seal against a toilet or sink drain hole regardless of the size or shape of the hole, thereby providing a more effective suction and driving force for the plunger when it is operated to clear the drain hole. The amended claims 1-4 and 6-12 specify that the sealing means comprises an upper first ring-shaped seal (32), a **bulbous annular curved second** ring-shaped seal (36), depending from the first ring and a third bottom ring-shaped seal secured to the second seal, smaller in diameter than the second ring. Claim 7 further specifies that the second ring-shaped seal is of a substantially greater height than the first and second rings and of a continuously curved bulbous shape with its lower end of less diameter than its upper end. Claims 10-12 describe the seals as being ring-shaped, vertically spaced and of progressively smaller diameter from the uppermost ring to the lowermost ring.

Chieten teaches a toilet plunger that does not teach any seals, or sealing rings. The plunger of Chieten does not and cannot perform the sealing functions of the present claimed plunger and is structurally and patentably distinct therefrom.

Gross teaches a plunger with a series of three small seals of equal dimensions disposed on the external surface of the force cup, the two lower seals being of equal diameter. However, Gross does not teach a second bulbous annular curved second ring-shaped seal. The addition of the seals of Gross to the plunger of Chieten would not serve to render Claims 1-4, 10-17 unpatentable.

Gross does not teach the claimed sealing rings of different dimensions and bulbous shape of the second seal as discussed previously. Nor does Gross recognize the advantages of the applicant's claimed invention, namely that the shape, size and location of the three sealing rings of the claimed plunger will efficiently seal against a toilet or sink drain hole regardless of the shape of the hole, thereby providing a more effective suction and driving force for the plunger when it is operated to clear the drain hole. The curved bulbous shape of the second seal is also advantageous in that its bulbous shape allows it to seal against drains holes with varied and varying diameters.

Thus, the applicant has claimed elements not taught in the cited art and which have advantages not recognized therein. Accordingly, no prima facie case of obviousness has been established in accordance with the holding of *In Re Fine*. This lack of prima facie showing of obviousness means that the rejected claims are patentable under 35 USC 103 over Chieten and Gross. As such, it is respectfully requested that the rejection of Claims 1-4, 10-17 be reconsidered based on the following non-obvious claim language:

"A toilet and sink drain plunger comprising: ...a handle; ...a bellows secured to said handle; and, ...toilet and sink drain hole sealing rings integral with the lower end of said bellows, said sealing rings comprising, ... an upper annular curved first ring depending from the lowermost portion of said bellows cooperating

therewith to form on the outer surface a first drain hole seal;...a **bulbous annular curved** second ring depending from said first ring, located relative to said first ring to form on its outer surface a second seal smaller than said first seal; and,a third bottom ring secured to the underside of said second seal, smaller in diameter than said second seal, the outer surface of said bottom ring forming a third seal, said seals being integral with each other and said bellows and having a central opening therein communicating with said bellows space."

In prosecution of the prior application, Claims 1-4 and 9-17 were rejected as being obvious over Cheiten in view of Gross, in further view of Tash, U.S. Patent No. 4,745,641. It was contended in the Office Action that it was considered obvious to add the pleated bellows to the plunger allegedly taught by the combination of Cheiten in view of Gross. The applicant respectfully traverses this contention of obviousness for the reasons specified in the discussion above of the rejection based on Cheiten in view of Gross.

Tash teaches a plunger having a pleated bellows. However, Tash does not teach the applicant's claimed three sealing rings, especially the bulbous curved second seal.

Figure 5 of the drawings in the present application demonstrates how the two lower seal rings efficiently engage the surfaces defining the drain hole to be plunged by the present claimed plunger. This sealing engagement is especially due to the **second bulbous annular curved sealing ring**. **The shape of this bulbous curved sealing ring allows a tight seal to be formed with a variety of drain openings, even those that are of a slightly graduated diameter. This sealing engagement clearly would not be possible with the small uniform diameter sealing rings of Gross**, if they were added to the Cheiten plunger. Moreover,

although Tash does show a pleated bellows, it does not show the three sealing rings of the present claims, their size, shape and relative location. Accordingly, there is no disclosure, whatsoever which is structurally similar to the present claimed sealing rings. None of the cited references disclose plungers, which perform as does the present claimed plunger to efficiently seal a drain hole regardless of its particular contours. It should be noted that the plungers of the cited references are incapable of being used efficiently on both sink drain holes and toilet drain holes, particularly toilet drain holes of drastically different configurations. Thus, the claimed sealing rings have advantages, which are not appreciated in the cited art.

The applicant has claimed elements not taught in the cited art, which have advantages not recognized therein. As a result, no *prima facie* case of obviousness has been established in accordance with the holding of *In Re Fine*. This lack of a *prima facie* showing of obviousness means that the rejected claims are patentable under 35 USC 103 over Cheiten in view of Gross, and in further view of Tash. It is, therefore, respectfully requested that the rejection of Claims 1-4 and 9-17 be reconsidered based on the above-quoted claim language.

In the Final Office Action the Examiner stated that Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening base claims. Applicant declines to amend Claims 6-8 at this time because it is believed that the foregoing amendments has placed the base claims in condition for allowance.

In summary, it is respectfully requested that the foregoing amendments to the existing claims be entered to place them in condition for allowance. Therefore, reconsideration of the rejection of Claims 1-4 and 6-17 is respectfully requested. It is the applicant's position, based on the foregoing arguments, that all claims are patentable under 35 USC 103 over the cited art. Accordingly, allowance of Claims

1-4 and 6-17, at an early date is courteously solicited.

Respectfully submitted,


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CHANGES MADE TO THE SPECIFICATION THIS AMENDMENT:

At page 5, lines 19-23, please change

[Figure 4 is a schematic top plan view of a plurality of toilets, a, b, c, d and e, illustrating different toilet bowl openings into which the improved drain plunger of the present invention can fit;]" to,

Figure 4 is a schematic side view elevation, of a preferred embodiment of the toilet and sink drain plunger of the present invention showing the plunger with an integrally formed handle.

At page 10, lines 5-8, please replace

[Fig. 4 shows an array of different toilet bowls, 64, 66, 68, 70 and 72 in respectively (a), (b), (c), (d), and (e), all of which can be effectively sealed and unclogged by plunger 10.] with,

Plunger 10 can fit into a many different toilet bowl openings. Hence, a variety of different toilet bowls can be effectively sealed and unclogged by this plunger 10.

At page 5, line 28, please delete

[Figure 6 is a schematic side view elevation, of a preferred embodiment of the toilet and sink drain plunger of the present invention showing the plunger with an integrally formed handle.]

At page 6, after line 20, please change,

[Alternately the entire plunger 10 can be of unitary construction, as shown in FIG. 6.] to

Alternately the entire plunger 10 can be of unitary construction, as shown in FIG. 4.

CLAIM CHANGES MADE THIS AMENDMENT

Claim 1. A toilet and sink drain plunger comprising:

- a) a handle;
- b) a bellows secured to said handle; and,
- c) toilet and sink drain hole sealing rings integral with the lower end of said bellows, said sealing rings comprising, [.]
 - i. an upper annular curved first ring depending from the lowermost portion of said bellows cooperating therewith to form on the outer surface a first drain hole seal;
 - ii. a [an] bulbous annular curved second ring depending from said first ring, located relative to said first ring to form on its outer surface a second seal smaller than said first seal; and,
 - iii. a third bottom ring secured to the underside of said second seal, smaller in diameter than said second seal, the outer surface of said bottom ring forming a third seal, said seals being integral with each other and said bellows and having a central opening therein communicating with said bellows space.

15. The plunger of Claim 11 wherein the [head] bellows section is formed of flexible resilient plastic.

16. The plunger of Claim 11 wherein said handle is [detachable from] releasably connected to said head.

17. The plunger of Claim 11 wherein said handle is [integral with] of unitary construction with said head.

Not
Approved
10/23/02

Proposed Drawing Changes



1 / 8

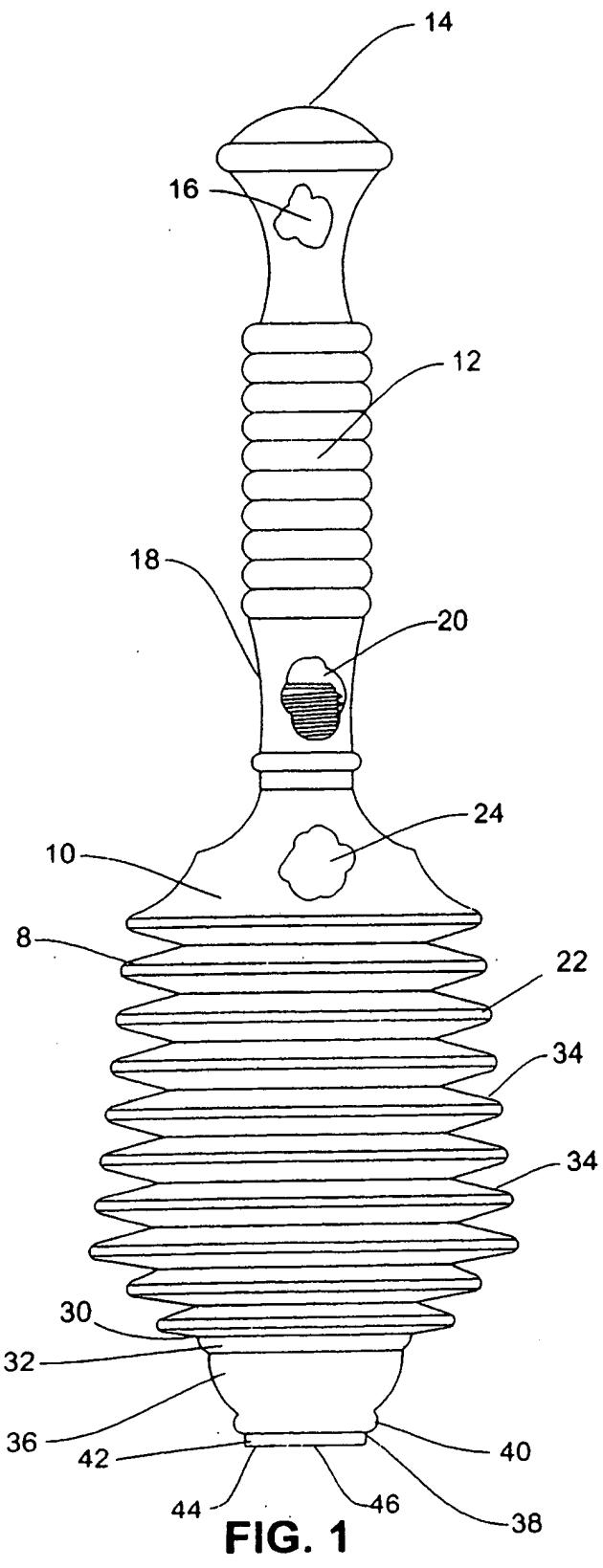


FIG. 1



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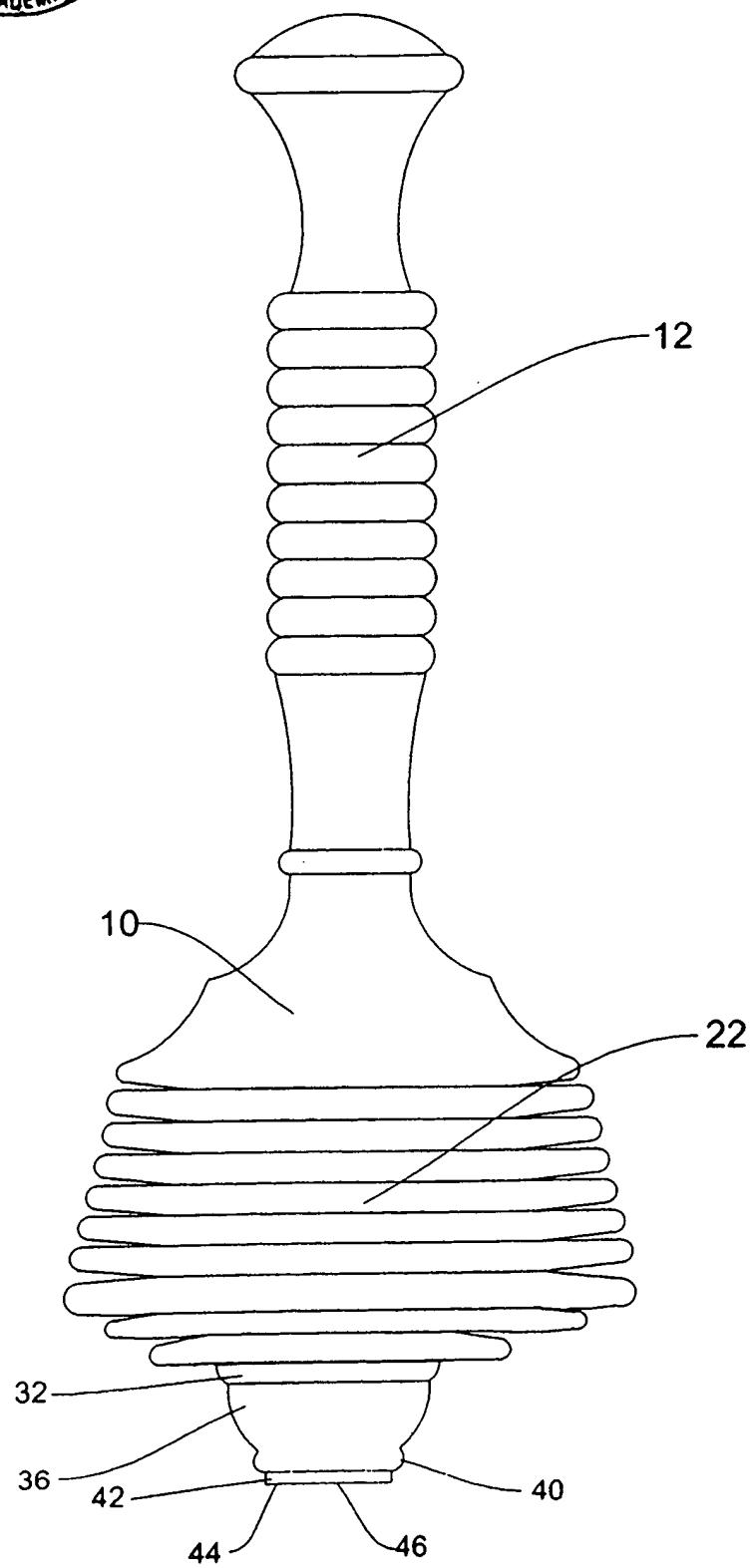


FIG. 2



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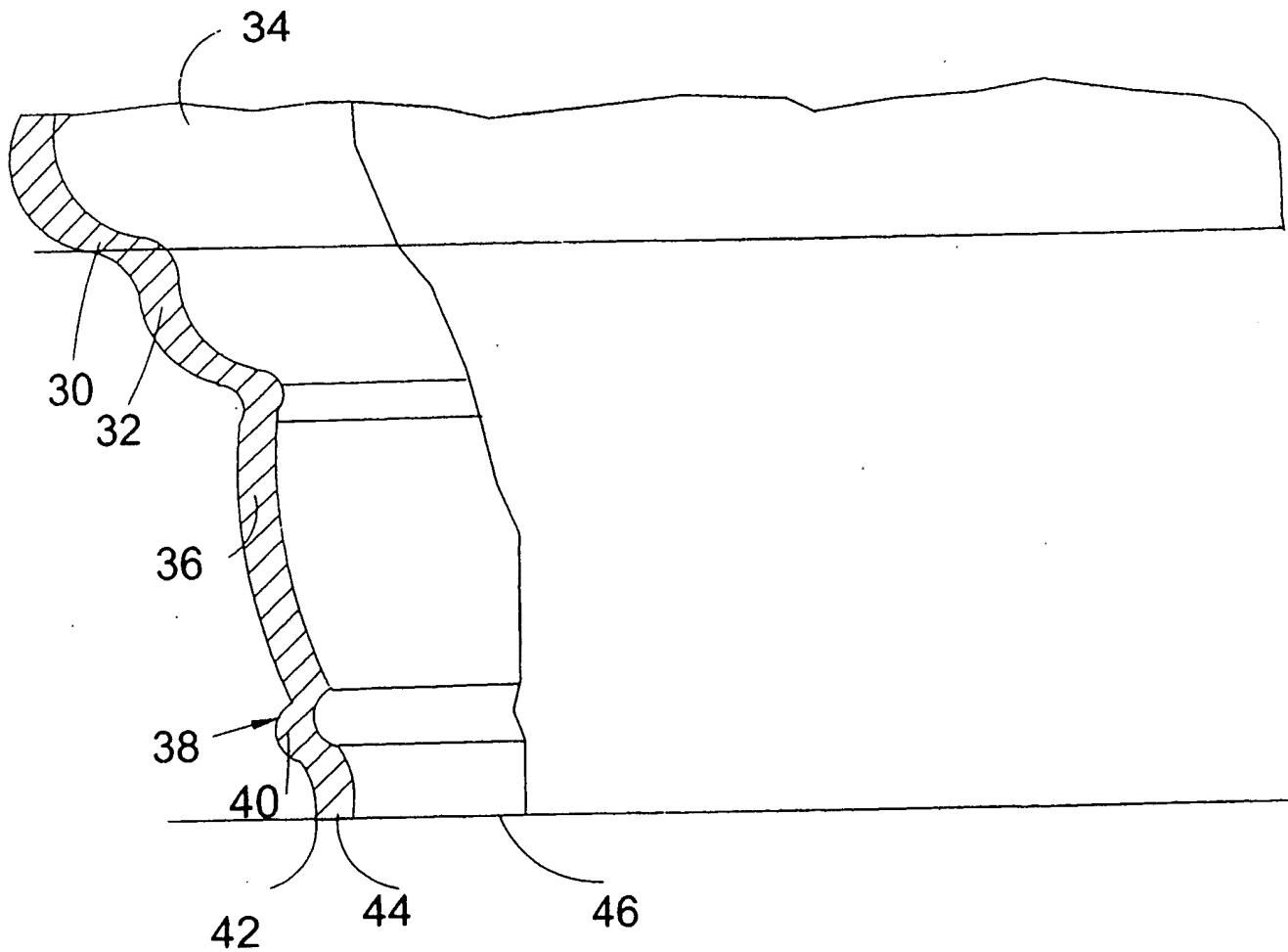


FIG. 3



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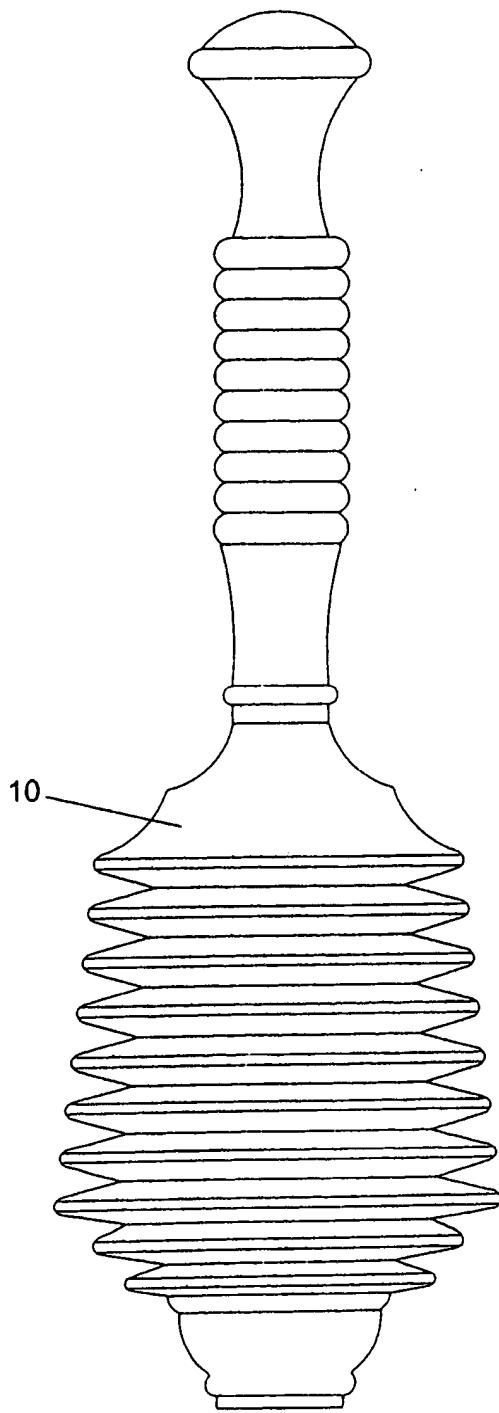


FIG. 6/8

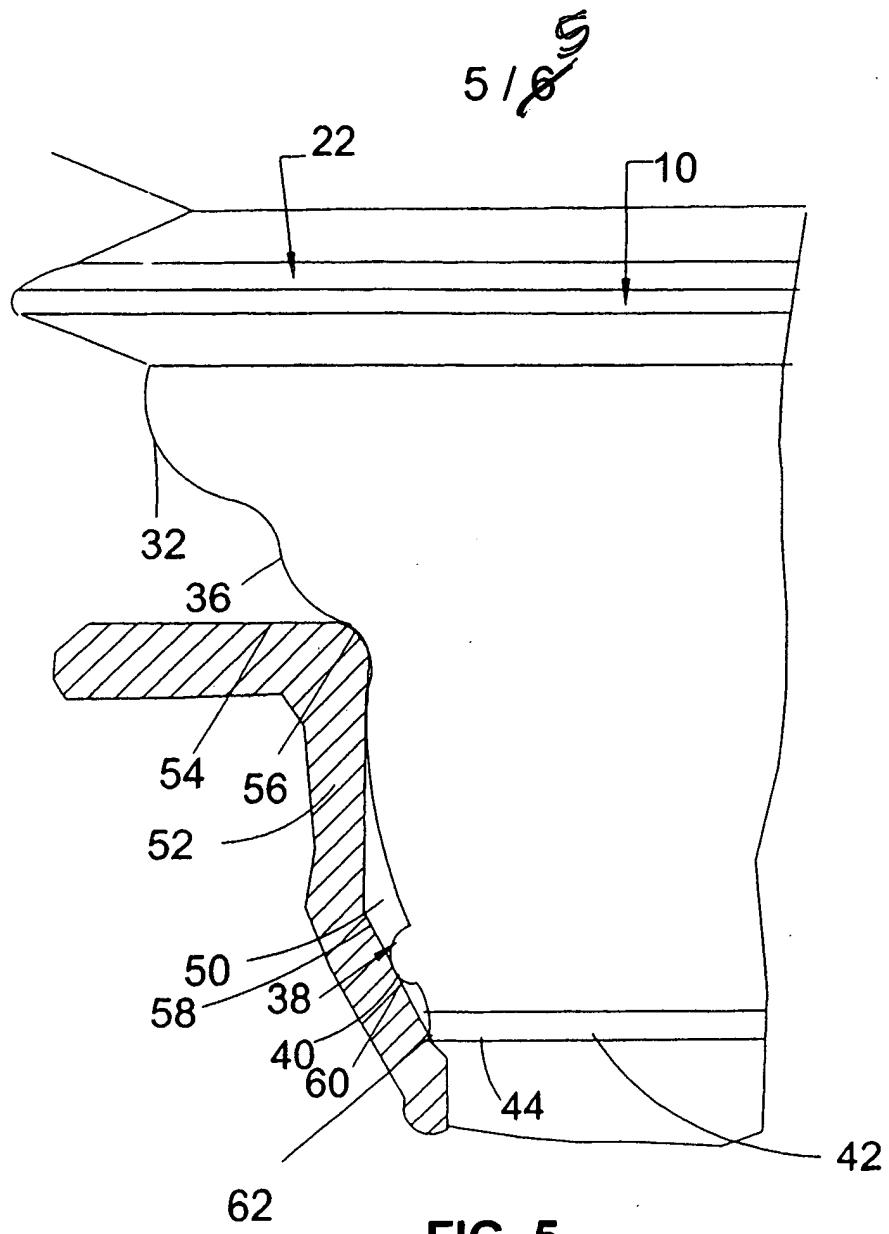


FIG. 5